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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,689	10/18/2005	Stephanie M. Whited	63126A	2018
35503 7590 05/29/2008 Union Carbide Chemicals and Plastics Technology Corporation P.O. Box 1967 Midland, MI 48641-1967				
EXAMINER				
LU, C CAIXIA				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
05/29/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/553,689

**Applicant(s)**

WHITED ET AL.

**Examiner**

Caixia Lu

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. Claims 1-5, 8-18 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Jorgenson et al. (US 6,187,866) for the same rationale as set forth in the Office Action mailed December 3, 2007.

***Claim Rejections - 35 USC § 103***

2. Claims 6, 7, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgenson et al. (US 6,187,866) for the same rationale as set forth in the Office Action mailed December 3, 2007.

3. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgenson et al. (US 5,290,745) in view of Jorgenson (US 6,617,405) for the same rationale as set forth in the Office Action mailed December 3, 2007.

***Response to Arguments***

4. Applicant's arguments filed on March 3, 2008 have been fully considered but they are not persuasive.

A. Rejections under 35 U.S.C. 103(a) as being unpatentable over Jorgenson et al. (US 5,290,745) in view of Jorgenson (US 6,617,405)

Applicants state, "Jorgenson-745 teaches away from Applicants' presently claimed invention, in that it recites the step of partially activating the catalyst while transferring the partially pre-activated catalyst precursor under plug-flow conditions into a gas phase, olefin polymerization reactor, wherein the catalyst partially pre-activated for a short residence time to minimize deactivation of catalyst about 1 minute to about 6

hours prior to the transferring step". As shown in the previous Office Action, it is noted that Jorgenson-745 does not expressly disclose conducting the pre-activation step by employing one or more in-line static mixers, the partial activation of the catalyst precursor is performed in a 400 liter vessel equipped with a turbine agitator as disclosed in Example 1 (c) in lines 39-57 of col. 10. However, conducting activation of a catalyst precursor by employing one or more in-line static mixers is disclosed in Jorgenson-405 as cited in the rejections of the previous Office action. Conducting the activation step in a in-line static mixer prevents the activated catalyst from been exposed and thus maximizes the catalyst activity. Therefore, it would have obvious to conduct the activation step in a in-line static mixer to partially activate the catalyst precursor of Jorgenson-745 for the same benefit. Applicants also argue that Jorgenson-745 does not disclose partial activation of the catalyst precursor. Jorgenson-745 is cited for its teaching of conducting catalyst precursor in a in-line static mixers. One cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references. In re Keller, 208 USPQ 871 (CCPA 1981). Applicants' arguments are piece meal analysis. The test for obviousness is not what would occur to those of ordinary skill when viewing first one reference and then the other, but what would occur of ordinary skill when viewing the combination of the reference. In view the combined teaching of the cited prior art, all of the elements are taught or suggested in the cited prior art, therefore, the rejections are still deemed to be proper and thus maintained.

Applicants' arguments of Jorgenson-745 being directed to producing low-density polyethylene copolymer is irrelevant since the polymerization process of the instant claims is not limited to a specific type of olefin polymers. Furthermore, Jorgenson-745 expressly discloses high density ethylene polymer with density as high as  $0.97 \text{ g/cm}^3$  being prepared by the process in line 21 of col. 8.

Applicants' showing provided in Table 1 of by comparing Examples 1&2 with Comparative Example 1 is noted. However, Comparative Example 1 is not representative of Jorgenson-745 since the catalyst of Comparative Example 1 is not partially activated prior feeding to the polymerization media. Applicants need to provide evidence to show unexpected results when the 400 liter vessel equipped with a turbine agitator is replaced with the in-line static mixer in Jorgenson-745 polymerization process in order to overcome the rejections.

B. Rejections under 35 U.S.C. 102(b) as being anticipated by Jorgenson et al. (US 6,187,866)

Applicants argument over the disclosure in lines 31-49 of col. 13 for Example 1 of Jorgenson-866 is somewhat irrelevant since the rejection is based on the disclosure in Table III of col. 15 for Example 5 of Jorgenson-866. It is shown in the previous Office Action, Jorgenson-866 disclosed all of the limitations of claims 1-5, 8-18 and 21. Since applicants have not yet indicated any error in the rejections, the rejections are maintained.

Applicants also argue that Jorgenson-866 is directed to producing low density polymer. It is the examiner position that the ethylene polymer of Jorgenson-866 is not

limited to low density ethylene polymer, Jorgenson-866 expressly discloses high density ethylene polymer with density as high as  $0.97 \text{ g/cm}^3$  to be prepared by the process in line 63 of col. 8. Furthermore, the olefin polymer of instantly claimed process is not limited to a high density ethylene polymer.

In view of the foregoing, the rejection of record are still deemed proper and thus maintained.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (571) 272-1106. The examiner can normally be reached on 9:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Caixia Lu/  
Caixia Lu  
Primary Examiner  
Art Unit 1796